IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re Application of:		)
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Inventors:	Armarender KethiReddy	)
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Serial No.:	10/066,088	) ATTORNEY FILE NO.
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Filed:	January 30, 2002	)
		) Customer No.: 27518
Title:	USER INTERFACE AND METHOD FOR PROVIDING SEARCH QUERY SYNTAX HELP	) Examiner: O'Neil Mistry
		) Confirmation No.: 2450
		) Art Unit: 2173

Board of Patent Appeals and Interferences
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BRIEF ON APPEAL

This is an appeal from the rejection by Examiner O'Neil Rajan Mistry, Group Art Unit 2173, of claims 1-34 as set forth in the CLAIMS APPENDIX, all claims in the application.

REAL PARTY IN INTEREST

The real party in interest is Sharp Laboratories of America, Inc., as assignee of the present application by an Assignment recorded in the United States Patent Office on January 30, 2002, at Reel 012582, Frame 0705.

RELATED APPEALS AND INTERFERENCES

None.

STATUS OF THE CLAIMS

Claims 1-34 are in the application.

Claims 1-34 are rejected.

Claims 1-34 are appealed.

STATUS OF AMENDMENTS

All claim amendments made prior to the Final Office Action of October 14, 2004 have been entered. No claim amendments have been filed subsequent to the Final Office Action.

SUMMARY OF CLAIMED SUBJECT MATTER

The invention of claim 1 describes a method for providing syntax help when using a search engine (e.g., Google). The process provides a search engine user interface that *automatically* supplies search syntax help in response to formulating a search request. Search syntax help includes the display of search syntax characters that are supported by the search engine. These method steps are depicted as Steps 904 and 906 in Fig. 9, and summarized in the specification at page 11, line 19,

through page 12, line 17. This invention came about in recognition that there are variations between the syntax characters that are used by various search engines. To save time in looking for, and opening a help menu, the invention of claim 1 automatically provides syntax terms options, in the form of a popup window, as soon as a user begins to enter a search term. Some examples of search syntax characters include "NOT" or "w/5" (within 5 words).

Claim 18 describes a search engine user interface with search syntax help. The elements of the user interface include an edit box for entering a search request, and a search syntax popup window that *automatically* appears in response to selecting the edit box. Fig. 1 shows the edit box, where the term "Sharp copier" has been entered as a search term. Fig. 2 shows the search syntax popup window that automatically appears while the user is entering a search term into the edit box. This user interface is described at page 6, line 1, through page 7, line 13.

The invention of claims 1 and 18 can be differentiated from the prior art in that fact that a search syntax popup window automatically appears, without the user having to search the toolbar menu for a syntax or help window. Alternately stated, the search syntax popup window appears in response to selecting an edit box, without having to enter a keystroke, or multiple keystrokes requesting the syntax help window.

GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

1. Whether claim 1 is anticipated under 35 U.S.C. 102(e) by Goiffon et al. ("Goiffon"; US 6,453,312).

2. Whether claims 2-34 are unpatentable under 35 U.S.C. 103(a) with respect to Shanahan et al. ("Shanahan"; US 6,732,090) in view of Goiffon.

ARGUMENT

1. The Rejection of claim 1 under 35 U.S.C. 102(e) as Anticipated by Goiffon

The Final Office Action rejects claim 1 under 35 U.S.C. 102(e) as anticipated by Goiffon et al. ("Goiffon"; US 6,453,312). Specifically, the Office Action states that, at col. 5, ln. 37-40, Goiffon discloses search syntax help that is automatically supplied in response to a search request. The Office Action also states that Fig. of Goiffon shows the display of search syntax characters suggested by the search engine.

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).

Generally, Goiffon describes a query development method that uses a hierarchical concept tree. A user interface permits interactive transversal of the various relationships in the hierarchical tree structure. The word and word strings produced may be connected with logical operators to supply a search query (col. 4, ln. 1-64). At col. 5, ln. 37-44, Goiffon states that "the query development may be fully automated by programmatically invoking transversal of the hierarchical concept tree structure with the selected parameters. All character strings that are located during transversal of the hierarchical concept tree are automatically formatted into a query string that may further include logical operators added using scrip commands."

In the Detailed Description, at col. 17, ln. 31-49, Goiffon states that, "(o)nce the user has determined that all desired strings have

been located in Window 502, the user selects the "Continue" button in Box 514. This causes the user to enter a screen in SSW which is a search string editor. This display allows the user to rearrange the search terms into a search string that includes standard logical operators like AND, OR, and NOT, and parenthesis to allow for search hierarchy. The syntax used to described these logical operators will be determined by a set of rules which is loaded to customize the SSW for a particular predetermined search environment..... As such, the syntax for using logical operations will vary, for example, between the use of "OR" and "+" to describe the logical "OR" function. SSW will insert the appropriate syntax required by the search tool that will is to receive the developed string."

Goiffon further states that "(t)he query may thereafter be processed by a script running on Script Server 142 to programmatically insert logical operators into the query. For example, script commands can be utilized to programmatically insert a logical operator "OR" between each of the search terms included in the query" col. 18, ln. 21-26.

In summary, Goiffon describes syntax that is dependent upon a search environment. In one embodiment, a script server automatically inserts logical operators between search terms, without human intervention (col. 20, ln. 15-21). Alternately, the search string editor can be manually controlled. However, Goiffon does not describe any mechanism that automatically supplies a list of supported syntax characters that may be used, simultaneous with the user's formulation of a search query.

As described in detail below, the Applicant's main assertions are that: 1) Goiffon does not automatically supply any kind of popup

window (or help) in response to formulating a query; and, 2) Goiffon does not supply a list of supported search syntax characters.

The ***Response to Arguments*** Section of the Final Office Action states Goiffon's process automatically supplies additional related search terms, and that this operation is the same as "supplying syntax help". However, this analysis fails to appreciate that claim 1 explicitly recites a list of supported syntax characters that is supplied as the form of syntax help. The ***Response to Arguments*** says that Goiffon automatically inserts operators between search terms, and that the user is given the option of editing terms. Again, the Applicant submits that an automatic insertion/editing process is a completely different set of operations, as compared to the Applicant's limitation of supplying a list of supported syntax characters in response to formulating a request.

The Examiner's analysis also fails to appreciate that there is a difference between "syntax characters" and "search terms". A "search term" is the subject of a search, i.e., "Uniforms". Syntax characters are the operators that join search terms. Using the above example, a search can be made as follows: "War" AND "Uniforms". In this example, "War" and "Uniforms" are the search terms and the word "AND" is a search syntax character. Keeping this distinction in mind, it can be seen that Goiffon's Fig. 4 describes the search term "bugs". Fig. 5 shows related search terms and search term "concepts". The menus of Figs. 4 and 5 do not show a popup window with search syntax characters.

The Advisory Action dated January 4, 2005, maintains the position that there is no difference between "search syntax characters" and "search terms". The Advisory Action states that "...Goiffon allows a user to enter a term, and then related *terms* (emphasis added) pop-up in

the display, or words that are similar by spelling are pop-up in the display as illustrated in Figure 6." The Advisory Action also states that "(i)n Figure 6, after the user has entered a search term, concatenate terms pop-up in the window with the search term..."

In response, the Applicant notes that Goiffon does not describe or show any menus that automatically popup. Applicant's claim 1 recites syntax help that automatically appears in response to formulating a search request. Goiffon shows no popup windows automatically appearing as a result of entering a search term. For example, no popup window automatically appears as a result of entering the search term "bugs" in Fig. 4. The menu of Fig. 5 appears only after terms are selected (entered) in Fig. 4, and a logic/search operation performed. Alternately stated, the popup window shown in Applicant's Fig. 2 appears *before* the search term is actually entered (before the search is made). Goiffon's menus only change *after* a search term is entered. No popup window automatically appears as a result of entering "VW Beetle" in Goiffon's Fig. 5. Likewise, Fig. 6 is a menu that appears as a result of entering the search terms of Fig. 5.

Further, Goiffon's invention merely generates similar or related search *terms* in response to submitting an initial search term. In Fig. 4 Goiffon's user enters the search term "bugs" and selects a level of hierarchy within the hierarchy tree (col. col. 14, ln. 44-55). Fig. 5 shows the results of the inquiry of Fig. 4. The results list variants of the search term "bugs" and concepts related to the search term "bugs". Fig. 6 shows the results of selecting the concept of "VW Beetle". Regardless of whether any of Goiffon's example menus automatically popup, these menus do not

display any syntax terms. Goiffon's menus only return related search terms in response to initially entering a search term.

The claimed invention is not concerned with supplying alternate, additional, or related search terms. Rather, claim 1 recites supplying a list of supported search syntax characters. The claimed invention specification states the search syntax characters are operators and connectors (page 6, ln. 19-21). Several examples of search syntax characters are presented as examples.

In summary, Goiffon's process of automatically inserting operators is not the same as providing a display of supported operators. Further, Goiffon's provision of related search terms has nothing to do with the provision of a list of operators. Since Goiffon does not describe the claimed invention limitation of supplying search syntax help that includes a display of supported syntax characters, he cannot anticipate. Since Goiffon does not supply any kind of help in response to merely formulating a request, he cannot anticipate.

2. The Rejection of Claim 2-34 under 35 U.S.C. 103(a) as Unpatentable with respect to Shanahan, in view of Goiffon

The Final Office Action has rejected claims 2-34 under 35 U.S.C. 103(a) as unpatentable with respect to Shanahan et al. ("Shanahan"; US 672,090) in view of Goiffon. The Final Office Action acknowledges that Shanahan fails to describe a system that systematically aids the user in building an enhanced search inquiry. The Office Action further states that it would have been obvious at the time of the invention to incorporate an advanced systematic step to develop a

query, as disclosed by Goiffon, with Shanahan's system of restructuring a query, to disclose the claimed invention.

An invention is unpatentable if the differences between it and the prior art would have been obvious at the time of the invention. As stated in MPEP § 2143, there are three requirements to establish a *prima facie* case of obviousness.

> First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and reasonable expectation of success must both be found in the prior art and not based on applicant's disclosure. *In re Vaeck* 947 F.2d 488, 20 USPQ2d, 1438 (Fed. Cir. 1991).

Generally, Shanahan describes a process for specifying a personality, which defines a set of document service requests that identify enrichment themes. A user-manager forms a meta-document from document content and the personality. "A scheduler selects a document service request from the set, for initiating and managing communication with a service provider to satisfy the selected document service. A content manager integrates results from the selected document service into the meta-document as document markup. The user interface, the user-manager, the scheduler, and the content manager operate together to generate or recommend new personalities or modify existing personalities using one or more in combination of a set of algebraic computations, a set of document references, a set of predefined personalities, a set of learning personalities, a knowledge level, and a classification of personalities" col.

3, ln. 1-18. Shanahan is absolutely silent on the subject of syntax and syntax help.

As described above in response to the anticipation rejection, Goiffon generally describes a query built from using a hierarchical tree structure. In accordance with the above-stated first *prima facie* requirement, the references themselves must suggest a reason to either modify a reference, or the knowledge generally available must provide a motivation to modify the reference in such a way as to make the claimed invention obvious. Goiffon's hierarchical tree cannot be combined with Shanahan's personality-associated meta-document in any kind of manner that suggests the use of an automatic syntax character popup window. Even if the references could be combined, the issue is not whether the combination suggests an enhanced inquiry process, as stated in the Office Action, as this is not one of the Applicant's claim limitations. Rather, the combination must suggest a process for supplying syntax help when a request is formulated (claim 1), or an edit box is selected (claim 18).

The ***Response to Arguments*** Section of the Final Office Action states that there is a logic to combine the Goiffon and Shanahan references because "Goiffon aids the user in developing an exclusive query to search a storage unit, and Shanahan is related for utilizing methods ... for retrieval data files in a storage unit..." However, this analysis is still incomplete. Even if there is some commonality between the references, the combination must suggest a modification (to one of references) that would make the claimed invention obvious. Alternately stated, even if Goiffon and Shanahan could be combined on the basis that Shanahan suggests search algorithm modifications to Goiffon, this combination has nothing to do with providing a display of supported search syntax

characters. The test is not just whether the references can be combined in retrospect based upon some common features, but rather, is there an aspect to the combination that suggests the claimed invention. Since the claimed invention is not concerned with search algorithms, the Applicant respectfully submits that the combination of references does not suggest a modification that makes the claimed invention obvious.

The Advisory Action states that "both references are related to search queries with different functionality features. The motivation to combine would be provide an improvement system by aiding user in developing search queries, and allows the user to control the manner of search (col. 3 lines 20-30) by Goiffon." However, there must be a motivation to combine the two prior art references in such as way as to make the claimed invention obvious. That is, there must be some element in Shanahan to suggest that Goiffon be modified in such as way as to make a pop-up syntax window obvious. Since neither reference mentions the use of an automatic syntax pop-up window, there is no motivation to combine references, at least with respect to claims 1 and 18.

Further, the Office Action has not demonstrated that the modification of the cited the prior art reference points to the reasonable expectation of success in the present invention, which is the second requirement of the obviousness analysis. If an expert were given Goiffon's logic tree and Shanahan's personality-associated meta-document as a foundation, it is extremely unlikely that this expert would come up with the idea of automatically providing syntax help in response to formulating a search inquiry.

The third requirement to support a *prima facie* case of obviousness requires that the combination of references must teach or

suggest all the elements of the claimed invention. As noted above in response to the anticipation rejection, Goiffon describes a process that automatically supplies operators between search terms. However, Goiffon does not show a list of supported search syntax terms or operators. Neither does Goiffon describe an automatic popup window. Shanahan is completely silent on the subject of syntax help. With respect to claim 1, the combination of references fails to explicitly describe or suggest the claimed invention limitation of automatically supplying syntax help in the form of supported syntax characters, in response to formulating a search term. Claims 2-17, dependent from claim 1, enjoy the same distinctions from the cited prior art.

With respect to claim 18, the Office Action acknowledges that Shanahan fails to automatically display a popup window with syntax help. Goiffon never describes a syntax help popup window that automatically appears in response to a formulating a search term. Therefore, the combination of Shanahan and Goiffon fails to explicitly describe or suggest the claim 18 limitations of a search syntax help popup window that automatically appears in response to selecting an edit box. Claims 19-34, dependent from claim 18, enjoy the same distinctions from the cited prior art.

SUMMARY AND CONCLUSION

It is submitted that for the reasons pointed out above, the claims in the present application clearly and patentably distinguish over the cited references. Accordingly, the Examiner should be reversed and ordered to pass the case to issue.

Authorization is provide, in the amount of $500.00, to cover the fee for this Appeal Brief. Authorization is given to charge any deficit or credit any excess to Deposit Account No. 19-1457.

Respectfully submitted,

Date:_____ _____

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TABLE OF CONTENTS

CLAIMS APPENDIX

1. (Previously Presented) In a search engine user interface (UI), a method for providing search inquiry syntax help, the method comprising:

formulating a search engine search request; and,

in response to the search request, automatically supplying search syntax help including the display of search syntax characters supported by the search engine.

2. (Original) The method of claim 1 further comprising:

presenting a search engine user interface with a selectable user interface edit box for formulating a search request;

wherein formulating a search engine search request includes selecting the edit box; and,

wherein automatically supplying search syntax help includes displaying a popup window with search syntax help in response to the search request formulated in the edit box.

3. (Previously Presented) The method of claim 2 wherein displaying search syntax characters supported by the search engine includes displaying search syntax characters selected from the group including connectors and operators.

4. (Original) The method of claim 3 wherein automatically supplying search syntax help includes displaying search syntax character definitions.

5. (Original) The method of claim 3 wherein automatically supplying search syntax help includes supplying a list of frequently-used search syntax characters.

6. (Original) The method of claim 3 wherein automatically supplying search syntax help includes displaying a list of every supported search syntax character.

7. (Original) The method of claim 3 wherein automatically supplying search syntax help includes displaying examples in which the search syntax characters are used.

8. (Original) The method of claim 7 wherein formulating a search engine search request includes forming a search request with at least one search term and a first search syntax character; and,

wherein supplying examples in which the search syntax characters are used includes supplying an example in which the first search syntax character modifies the search term.

9. (Original) The method of claim 7 wherein formulating a search engine search request includes forming a search request with a plurality of search syntax characters; and,

wherein supplying examples in which the search syntax characters are used includes supplying an example in which the plurality of search syntax characters modify search terms.

10. (Original) The method of claim 8 wherein formulating a search engine search request includes forming a search request with a first and second search term; and,

wherein supplying examples in which the search syntax characters are used includes supplying an example in which the first search term is linked to the second search term using the first search syntax character.

11. (Original) The method of claim 3 further comprising:

following the formulating of a search engine search request, submitting the search request to the search engine; and,

in response to submitting the search request, automatically closing the search syntax help popup window.

12. (Original) The method of claim 11 further comprising:

displaying the results of the search;

editing the search engine search request; and,

in response to the editing the search request, automatically supplying search syntax help.

13. (Original) The method of claim 3 further comprising:

following the formulating of a search engine search request, changing the focus of the search engine user interface; and,

in response to changing the search engine user interface focus, automatically closing the search syntax help popup window.

14. (Original) The method of claim 1 further comprising:

providing a user selectable syntax help enablement option; and,

wherein automatically supplying search syntax help includes supplying search syntax help in response enabling the syntax help option.

15. (Original) The method of claim 3 further comprising:

providing user selectable search syntax help configuration options; and,

wherein automatically supplying search syntax help includes supplying search syntax help configured in response to the search syntax help configuration options.

16. (Original) The method of claim 15 wherein providing user selectable search syntax help configuration options includes providing a popup window with frequently-used search syntax characters as a default configuration.

17. (Original) The method of claim 15 wherein providing user selectable search syntax help configuration options includes providing a popup window with a list of every supported search syntax character as a default configuration.

18. (Original) A search engine user interface (UI) with search inquiry syntax help, the user interface comprising:

a selectable focus edit box for inputting a search request to a search engine; and,

a search syntax help popup window that automatically appears in response to selecting the edit box.

19. (Original) The user interface of claim 18 wherein the search syntax help popup window displays search syntax characters supported by the search engine, where the search syntax characters are selected from the group including connectors and operators.

20. (Original) The user interface of claim 19 wherein the search syntax help popup window displays search syntax character definitions.

21. (Original) The user interface of claim 19 wherein the search syntax help popup window displays a list of frequently-used search syntax characters.

22. (Original) The user interface of claim 19 wherein the search syntax help popup window displays a list of every supported search syntax character.

23. (Original) The user interface of claim 19 wherein the search syntax help popup window displays examples in which the search syntax characters are used.

24. (Original) The user interface of claim 23 wherein the edit box accepts a first search syntax character and at least one search term input; and,

wherein the syntax help popup window displays an example in which the first search syntax character modifies the search term.

25. (Original) The user interface of claim 23

wherein the edit box accepts a plurality of search syntax character inputs; and,

wherein the syntax help popup window displays an example in which the plurality of search syntax characters that modify search terms.

26. (Original) The user interface of claim 24 wherein the edit box accepts a first and second search term input; and,

wherein the syntax help popup window displays an example in which the first search term is linked to the second search term using the first search syntax character.

27. (Original) The user interface of claim 18 further comprising:

a window to display the results of the submitted search engine search request; and,

wherein the search syntax help popup window closes in response the search engine search request being submitted.

28. (Original) The user interface of claim 27 wherein the edit box is reselected for editing, following the display of the search results; and,

wherein the search syntax help popup window automatically reappears in response to the reselecting the edit box.

29. (Original) The user interface of claim 18 further comprising:

at least a second selectable user interface focus; and,

wherein the search syntax help popup window closes in response the second user interface focus being selected.

30. (Original) The user interface of claim 18 further comprising:

a configuration menu with a user selectable check box to enable the syntax help popup window; and,

wherein the search syntax help popup window appears in response to the configuration check box being selected.

31. (Original) The user interface of claim 30 wherein the configuration menu provides search syntax help configuration options with default settings; and,

wherein the search syntax help popup window displays frequently-used search syntax characters as a default configuration.

32. (Original) The user interface of claim 30 wherein the configuration menu provides search syntax help configuration options with default settings; and,

wherein the search syntax help popup window displays a list of every supported search syntax character as a default configuration.

33. (Original) The user interface of claim 30 wherein the configuration menu provides search syntax help configuration options with default settings; and,

wherein the search syntax help popup window displays example of how search syntax characters are used as a default configuration.

34. (Original) The user interface of claim 18 wherein the search syntax help popup window is responsive to the search request input into the edit box.

EVIDENCE APPENDIX

ATTACHMENT A